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INTENSIVE AND EXTENSIVE CULTIVATION TECHNIQUES IN NORTH VIETNAM

[Following is a translation of an unsigned article in the Vietnamese-language periodical Khoa Hoc Ky Thuat Nong Nghiep Loai-Cho Hop Tac Xa (Agricultural Sciences and Technology-For Cooperatives), Hanoi, 15 Jan 1965, pp 2-5.]

I. Intensifying All Cultivation

Cultivation can be intensified by expanding the plantation of crops and increasing the yield for each crop season.

1. To expand vegetables in areas where, in the past, rice has been the only crop, we must apply the formula "one vegetable-two rice" to a portion of the cultivated land. This formula means that green vegetables and three-month vegetables are planted before Tet [the new year], around the latter ten-day period of November (Hong Quang potatoes will give best results). After Tet, potatoes are picked and spring rice is planted sometime between 25 February and 10 March (Tra Trung Tu rice is most suitable). The harvest of spring rice is followed by the plantation of autumn rice (Nong Nghiep I rice is best), or of early ninth-month rice. The "one vegetable-two rice" formula can also be carried out by rotating one crop of long term vegetables during the winter-spring period, then one crop of autumn rice, followed by one crop of late ninth-month rice. This has been the practice in the suburban village of Ma Lao during the last three years. To ensure a high yield for late ninth-month rice, seeds are started as usual; seedlings, however, are first planted temporarily. Then after the harvest of autumn rice, seedlings are removed and planted permanently.

In some areas, it is easier to expand vegetable crops. Two vegetable crops are planted in fields which have been used for only one crop. The ninth-month rice is planted as usual after the winter-autumn vegetables are harvested. This is the "two vegetables-one rice" formula.

2. To increase yields, we must apply improved techniques to our use of water, fertilizers, soil, seeds and care of plants.

Regarding water, rice, vegetables and industrial plants must be irrigated scientifically. This requires the construction and maintenance of retaining walls and dividing dikes.

Regarding fertilizers, great importance must be attached to animal husbandry, the maintenance of stables and pens, production of fertilizers and cultivation of marsh lentils and other green fertilizers.

Regarding soil, plowing and harrowing must be thorough for rice as well as for vegetables and industrial plants.

Regarding seeds, selection, preservation and treatment must be carried out scientifically. For each crop rotation, a rice field must be selected and given special care so that good seeds are obtained for the following crop.

Regarding care, rice fields must be weeded when they are still muddy. For vegetables and industrial plants, the soil must be turned and broken. Insects and diseases must be prevented. Preventive and corrective measures must be taken against soaking and drought.

Regarding equipment, tools for working the soil, for tending plants, and for harvesting must be improved. Special attention must be given to harrows, rakes, insecticide sprayers, irrigation equipment, carts, boats, harvesting machines.

3. More labor must be assigned to each unit-area of land. Rice requires from 100 to 120 man-days per hectare, and vegetables from 130 to 150 man-days per hectare.

Labor must be invested in the most important work phases: plowing, harrowing, manure processing, marsh lentil growing, irrigation, insect and disease prevention,

weeding and soil turning. With regard to harvesting, transportation work must be developed by improving equipment and by using improved carts. By investing labor in the most important phases of work, we are stimulated to improve techniques and equipment. The proper amount of labor should be 20 per cent more than what it was in the past. For example, in 1963, each worker provided 165 man-days in the entire year. In 1965, the average worker must supply approximately 200 man-days.

II. Experimental Stage of Extensive Cultivation

Since the beginning of 1965, Ha Dong Province has been following a program of extensive cultivation and crop expansion for rice, vegetables and industrial plants. From our experience in previous years, the people of Ha Dong have found that the following points required special attention:

1. Extensive cultivation must be undertaken as a result of the initiative of the peasants. The peasants of Ha Dong have valuable production experiences and their thinking is scientific. That is why Kim Boi corn scores 180 kilograms per "sao," Co Chau potatoes seven piculs per "sao," Phu Huu Te mulberry for silkworms 34 tons per hectare, Nam Phu sugar cane three tons per hectare. Many production teams in this province have raised five yields from 150 kilograms to 200 kilograms per "sao." In some years Minh Khai (Hcai Duc) reached a yield of 42 piculs per hectare for the ninth-month crop.

Thus the program of extensive cultivation has greatly benefitted from the production experiences of the people. Cadres sent to villages cannot run the program by themselves nor should they force people to carry out their ideas. Instead, they should instill in the people the ability to utilize all their intellect and energy, to combine their experiences with the new technology, in order to attain the highest yields.

2. The program of extensive cultivation must start with small-scale experimental projects. These projects must be thoroughly studied, carefully implemented and gradually expanded. To push the program cadres must suggest to people that they set up experimental projects, and assign the best growers in corn, potatoes, sugar cane or mulberry to these experimental projects.

When these pilot projects are successful, certain lessons must be learned and applied to large-scale production.

3. Instruction must be concentrated in central villages and localities from which the training will be disseminated. In addition to setting up pilot projects, a number of centers must be selected. These centers are village cooperatives. Cooperatives are better. At present Ha Dong has 16 centers assigned to specific crops and domestic animals. Efforts are concentrated in the development of these centers. As experience is gained, it must be disseminated from each center to the appropriate area.

4. Extensive cultivation requires close unity between the Party, the people and the specialists under the Party's leadership. The Party is the leader, the specialists are the planners, and the people are the support.

This unity coordinates the Party's glorious leadership, the specialists' zeal to cooperate, and the people's zeal to work. Thus, in order to obtain good results in growing corn, potatoes, sugar canes, silkworm mulberry, we must set up pilot projects, select test centers, and disseminate the experiences so gained. All this requires that Party committee members assume direct responsibility, that secretaries launch campaigns to gain the participation of large numbers of Party members and the masses of the people. Under the leadership of the Party, the masses will be aroused and encouraged to contribute their ideas to production. Also under the leadership of the Party, specialist cadres (technical cadres) will assist the people by learning from them, by trying to understand the scientific basis of their experience and by bringing science to them.

This will make the people willing to cooperate with the cadres. A recent example: The people of Kim Boi have helped cadres understand their empirical knowledge in growing Kim Boi corn and make this knowledge in growing corn more systematic. Many cooperatives are trying to apply this knowledge to the task of growing corn.

This is also the unity of the Party's political stand with the scientific training of the cadres and the experience of the people. Besides the technical training received from the Party, the cadres must try to understand and utilize the experience of the people, must extract scientific theories from empirical facts, test these theories

against further observations and put them to the service of the people. At the same time, they must follow the leadership of the Party, communicate the Party's decisions to the people, and persuade the people to carry out these decisions. Among the Party's decision is the expansion of the cultivation of vegetables and industrial plants. For its part, the Party must consider the scientific knowledge of the cadres and the experience of the people in making its decisions and utilizing the ideas of the people and the cadres.

Thus, political cadres, as well as technical cadres, should not hesitate to change their previous work methods entirely. This method was to proceed from the top level down to the people. Extensive cultivation must be carried out by a people-based method. This is a scientific method for stimulation of the people's thinking on the pilot projects and programs of extensive cultivation.

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